



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

DW-8J

MEMORANDUM TO FILE

Date: 02-24-04

Subject: Vickery Environmental, Inc., Environmental Justice Demographic Analysis

From: Jennifer Dodds, Environmental Scientist

To: Administrative Record for the Vickery Environmental, Inc. Hazardous Waste Treatment, Storage, and Disposal Permitting Action. U.S. EPA ID# OHD 020 273 819

Introduction

This demographic analysis is being performed as part of the Resource Conservation and Recovery Act (RCRA) permit application review process in order to determine whether the Vickery Environmental, Inc. (VEI) facility is in a low income or minority area for which environmental justice (EJ) may be a consideration in any Federal action. Environmental justice the fair treatment and meaningful involvement of all people regardless of race or income with respect to development, implementation, and enforcement of environmental laws, regulations, and policies. It is the goal of the United States Environmental Protection Agency (U.S. EPA) to recognize and address disproportionately high and adverse human health and environmental effects of its programs upon minority and low-income populations. The focus on environmental justice issues grew from the February 11, 1994 Executive Order 12898 entitled "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." The Executive Order states:

"... to the greatest extent practicable and permitted by law ... each Federal Agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."

Although there are no U.S. EPA national guidelines, Region 5 has developed interim Guidelines as a basis to determine whether a case should be classified as an environmental justice case. U.S. EPA Region 5 "*Revised Region 5 Interim Guidelines for Identifying and Addressing a Potential Environmental Justice Case*" dated June 1998 ("Guidelines") offer a defined procedure for identifying potential environmental justice cases.

In accordance with Executive Order 12898 and the Guidelines, U.S. EPA evaluated the demographic information of the community surrounding the site for treatment, storage, and disposal of hazardous waste. For the following reasons, U.S. EPA determined that VEI's application for a permit to treat and store hazardous waste does not qualify as an environmental justice case.

Background

On August 27, 2003, U.S. EPA received a RCRA permit application from Vickery Environmental, Inc. located at 3956 State Route 412, Vickery, Ohio 43464. VEI is a treatment, storage, and disposal facility of aqueous hazardous wastes. The Integrated Aqueous Waste Treatment System (IAWTS) consists of the following units: (1) the Truck Unloading Facility which includes ancillary, basket strainers and pumps, waste receiving tanks (V-Tanks), waste head-gas caustic scrubber and solids handling unit; (2) Waste Storage, and Treatment Tank System (T-Tanks); (3) the filters and filter buildings; (4) the pumps and pump houses; and (5) the yard piping which leads from the IAWTS to the deepwell injection pumps. If issued, the RCRA permit would describe the requirements Vickery Environmental, Inc. must meet to comply with environmental regulations when operating its treatment, storage, and disposal facility.

Environmental Justice Criteria

The draft guidelines give the following criteria for identifying an EJ area:

1. The low income or minority percentage of the census block group where the site is located is greater than or equal to 2 times the state's low income or minority percentages; or
2.
 - A. The low income or minority percentage of the census block group where the site is located is greater than the state's low income or minority percentages, but less than 2 times the state's low income or minority percentages; and
 - B. The community identifies itself as an EJ area, the community reveals that the EJ issues are involved, or U.S. EPA believes that EJ issues exist at the site.

Demographic Analysis

The Guidelines require U.S. EPA to analyze the demographic information of an area by using census block group data collected from the census block group where the facility may be located. In this case, U.S. EPA first analyzed the demographic data from the census block group, but also analyzed the demographic data within a 1-, 2-, and 4-mile radius of the location of the facility. U.S. EPA expanded the required analysis to address any potential impact the facility may have on the surrounding community.

1. Census Block Group

Listed below is the demographic information based on 2000 STF3A data for the census block group containing the Vickery Environmental, Inc. site:

Low Income ¹	Minority Population ²	Total Population	White Population
17.16%	2.01%	746	731

¹ The U.S. EPA defines "Low Income" as household income which is less than double the poverty level.

² The U.S. EPA defines "Minority" as all people except white non-Hispanics.

2. Expanded Demographic Review

The U.S. EPA also evaluated the demographic composition of the population within a 1-, 2-, and 4-mile radius of the facility. The demographics with the highest proportion of low-income and/or minority populations from either the census block group in which the facility is located, or any of the three radii considered, will be used for the EJ determination. The demographic analysis was conducted as outlined in Attachment 1.

Demographics of 4-Mile Radius

The following table is based on 2000 STF3A data for census blocks within 4 miles of the Vickery Environmental, Inc. facility (see Attachment 2 for maps and figures):

Total Population	Minority	Low Income
2839	5.83 %	27.25%

Demographics of 2-Mile Radius

The following table is based on 2000 STF3A data for census blocks within 2 miles of the Vickery Environmental, Inc. facility (see Attachment 2 for maps and figures):

Total Population	Minority	Low Income
575	4.01%	18.86%

Demographics of 1-Mile Radius

The following table is based on 2000 STF3A data for census blocks within 1 mile of the Vickery Environmental, Inc. facility (see Attachment 2 for maps and figures):

Total Population	Minority	Low Income
141	3.94%	18.42%

3. **Demographics of the State of Ohio**

According to the U.S. Census Bureau, in the State of Ohio, 27% of the population is low income and 16% is minority.

State of Ohio Demographics and Environmental Justice Demographics

	Minority	2 Times Minority	Low Income	2 Times Low Income
State of Ohio	16%	32%	27%	54%

EJ Concerns raised by the community or others

There were no EJ issues raised by the community. This information was obtained through various contacts at U.S. EPA and the OEPA.

Conclusion

According to the facts and criteria above, U.S. EPA has determined that Vickery Environmental, Inc.'s application for a RCRA permit to treat, store, and dispose of aqueous hazardous waste does not qualify as an EJ case. First, minority population percentages within the census block group of the facility (2.01%), within a 4-mile radius (5.83%), within a 2-mile radius (4.01%), and within a 1-mile radius of VEI's site (3.94%) are below Ohio's minority population percentage (16%). The low income population percentage within the census block group (17.16%) is also below Ohio's low income population percentage (27%). The low income population percentages within a 4-mile radius of VEI's site (27.25%), within the 2-mile radius (18.86%), and within the 1-mile radius (18.42%) are equal to or below Ohio's low-income population percentage (27%). In addition to that, the community did not identify itself as an EJ area, and U.S. EPA has no information to indicate that EJ issues exist at the site.

Because minority population and low income percentages within the census block group of the facility, within a 4-, 2-, and 1- mile radius of VEI's site are equal to or below Ohio's minority population and low income percentages, U.S. EPA has determined that the Vickery Environmental, Inc.'s facility does not qualify as environmental justice case.

Future Actions

1. Share this analysis with the Region 5 EJ team, OEPA, and the Region 5 Office of Regional Counsel.

Attachment 1

ArcView GIS software is used to identify environmental justice areas near hazardous waste sites. To use ArcView GIS, one needs to have all their data geo-referenced. In other words, all data, points, lines and polygons (areas), need geographic coordinates (latitude/longitude). In creating the maps, charts and tables the following steps were taken.

- 1) The sites latitude/longitude were located through U.S. EPA's envirofacts database. Envirofacts database holds information on seven of U.S. EPA's major databases. The latitude/longitude accuracy in Envirofacts varies from zip code centroid location to the site having data located by Global Positional System (GPS). If a site's latitude/longitude accuracy is not at least identified by an address match process or not available in Envirofacts, then a latitude/longitude is obtained by using the Internet site www.mapblast.com address matching capabilities. In MapBlast's mapping section, one provides the address of the facility and it will return a map of the area and the latitude/longitude for the facility.
- 2) The geographic coordinates for the site are brought into the ArcView software and overlaid with 2000 Census demographic data, 1997 Toxic Release Inventory Data and other requested information (i.e. schools). All data in the ArcView GIS project are geo-referenced by its geographic coordinates.
- 3) To identify a community near a site, concentric circles of 1, 2 and 4 mile radii from the site are created. Since all data are geo-referenced, distances can be calculated by the software.
- 4) Census data are broken down into census tracts. A census tract does not cross county boundaries and is made up of census block groups. Census block groups are made up of census blocks. In a densely populated area, a census block is approximately a city block where, in a sparse area, a census block can almost equal the area of a census tract. Census tracts cover an area of approximately 4000 people. In sparsely populated areas and when part of a census tract is included in the concentric circles, the population near a site is estimated by assuming that the population is equally dispersed across the area. To identify the population totals, the concentric circles are overlaid with the census data and then the census data is "clipped" out. This clipped data contains the census totals for the whole census tract and the area of the circles. To estimate the population, the census totals area are multiplied by the clipped area divided by the whole census tract area (population estimated = census totals*(clipped area/census tract area)).
- 5) The Bureau of Census data compiles population data in several formats. Along with the population totals, there are data on race, income level, language spoken, etc. Minority totals for each concentric circle can be calculated by taking the total population and subtracting the white non-Hispanic population, then multiplying that number by the clipped area divided by the whole census tract area (minority estimated = (total population - white non-Hispanic population)*(clipped area/census tract area)).

February 24, 2004

Attachment 2

Maps and Figures

February 24, 2004